Remarks

This Response responds to the Office Action dated 10 June 2009 in the above-listed matter.

This Amendment is being filed within the three-month shortened statutory response period indicated by the Office Action, so no late fees are required. The present amendment does not change the total number of claims nor does it change the total number of independent claims. Accordingly, fees are not necessitated.

For the Claims:

Applicant submitted claims 1-23. This Office Action rejects claims 1-23. Applicant retains claims 1-23 as originally and previously submitted. Applicant respectfully requests reconsideration.

This Office Action rejects claims 1-16 and 21-23 under 35 U.S.C. 101 as being directed to non-statutory subject matter. This rejection was previously made in this matter in the Office Action dated 2 April 2008, and Applicant amended claims to overcome this rejection in the Amendment filed 13 June 2008. As a result of this 13 June 2008 Amendment, the 22 September 2008 Office Action withdrew the 35 U.S.C. 101 rejection. Subsequently, Applicant filed an Appeal Brief in response to the Office Action dated 22 September 2008. In the Appeal Brief, Applicant mistakenly included the originally submitted claims instead of the amended claims presented in the 13 June 2008 Amendment. Applicant has included in this Amendment the previously presented claims that were amended in the 13 June 2008 Amendment, hereby incorporates by reference the Remarks directed thereto from the 13 June 2008 Amendment, and believes that the rejection of claims 1-16 and 21-23 under 35 U.S.C. §101 has been overcome, as indicated by the withdrawal of the 35 U.S.C. 101 rejection in the 22 September 2008 Office Action.

This Office Action rejects claims 1-10, 15-20, and 22 under 35 U.S.C. 103(a) as being unpatentable over Ouimet, U.S. Application Publication No. 2002/0107819 (hereinafter Ouimet) in view of "Application of Linear Decomposition Technique in Reliability-Based Structural Optimization", by F. Jensen and P. Thoft-Christensen (hereinafter Jensen).

This Application claims priority under 35 U.S.C. §119(e) to *Enhanced Strategic Planning and Optimization System*," U.S. Provisional Patent Application Serial No. 60/459,925, filed 3 April 2003. Furthermore, U.S. Application Publication No. 2002/0107819, which is being cited against the present application, has the same inventive entity as the present application and was published on 8 August 2002. Thus, the Provisional Application was filed within one year of the publication of Ouimet. As a result, Ouimet cannot be used as prior art for any claims that are based upon material that has a basis in the Provisional Application.

Each claim having a basis in the Provisional Application is discussed in the following sections.

Independent Claim 1

All elements of this claim can be found in the Provisional Application as follows: The element of "generating a planning function describing said planning model, said planning function depending upon said set of decision variables" is found on page 16, lines 20-24. The element of "separating said planning function into independent planning functions, each of said independent planning functions depending upon different ones of said set of decision variables" is found on page 17, lines 6-12. The element of "independently optimizing each of said independent planning functions in said computing environment to obtain said decisions for said different ones of said set of decision variables" is found on page 17, lines 16-17. The element of "presenting an outcome of said optimizing operation at an output section of said computing environment, said outcome indicating said obtained decisions" is found on page 11, lines 25-31.

Dependent Claim 2

The element in this dependent claim can be found on page 16, lines 3-5 of the Provisional Application.

Dependent Claim 3

The element in this dependent claim can be found on page 16, lines 1-3 of the Provisional Application.

Dependent Claim 4

The element in this dependent claim can be found on page 20, lines 3-8 of the Provisional Application.

Dependent Claim 5

All elements of this claim can be found in the Provisional Application as follows. The element of "said planning model incorporates a primary objective and a strategic objective of said enterprise" is found on page 16, lines 1-9. The element of "defining a primary objective function describing said primary objective, said primary objective function including said set of decision variables" is found on page 14, lines 3-9. The element of "defining a strategic objective function describing said strategic objective, said strategic objective function including a subset of said decision variables" is found on page 14, lines 16-20. The element of "said generating operation incorporates said primary objective function and said strategic objective function within said planning function" is found on page 15, lines 1-5.

Dependent Claim 6

All elements of this claim can be found in the Provisional Application as follows. The element of "specifying a plurality of values for a strategic factor, said strategic factor being configured to adjust an influence that said strategic objective has on said planning model" is found between page 10, line 31 and page 11, line 5. The element of "coupling said strategic objective function with said strategic factor" is found on page 11, lines 10-12.

Dependent Claim 7

The element in this dependent claim can be found on page 11, lines 19-24 of the Provisional Application.

Dependent Claim 8

All elements of this claim can be found in the Provisional Application as follows. The element of "said strategic objective is a first strategic objective" is simply a name modification. The element of "said method further comprises defining a second strategic objective function describing a second strategic objective of said enterprise, said second strategic objective function including a second subset of said decision variables" is found on page 11, lines 12-16. The element of "said generating operation further incorporates said second strategic objective function within said planning function" is found on page 11, lines 12-16. The element of "said presenting operation comprises providing an interaction of said primary objective function, said first strategic objective function, and said second strategic objective function" is found between page 11 line 25 and page 12 line 4.

Dependent Claim 9

All elements of this claim can be found in the Provisional Application as follows.

The element of "specifying a plurality of values for a second strategic factor, said second strategic factor being configured to adjust an influence that said second strategic objective has on said strategic planning model" is found between page 10, line 31 and page 11, line 5.

The element of "coupling said second strategic objective function with said second strategic factor" is found on page 11, lines 10-12.

The element of "said optimizing operation further includes independently optimizing said planning function for each of said second values of said second strategic factor" is found on page 11, lines 19-24.

Dependent Claim 10

The element in this dependent claim can be found on page 10, lines 4-14 of the Provisional Application.

Dependent Claim 11

All elements of this claim can be found in the Provisional Application as follows. The element of "defining a primary objective function describing said primary objective, said primary objective function including said set of decision variables, and said generating operation

incorporating said primary objective function within said planning function" is found on page 14, lines 3-9 and page 16, lines 1-28. The element of "determining a coupling between said decision variables in said primary objective function" is found on page 21, lines 4-15. The element of "introducing an embedded constraint into said primary objective function" is found on page 21, lines 18-21. The element of "following said introducing operation, performing said independently optimizing operation to optimize said primary objective function while concurrently satisfying said embedded constraint" is found between page 21, line 27 and page 22, line 8.

Dependent Claim 12

All elements of this claim can be found in the Provisional Application as follows. The element of "including an embedded constraint variable for said embedded constraint in said primary objective function" is found on page 21, line 20. The element of "defining an embedded constraint function to include said embedded constraint variable" is found on page 21, lines 21-24. The element of "said generating operation comprises constructing said planning function by combining said primary objective function and said embedded constraint function" is found on page 21, lines 21-24. The element of "said independently optimizing operation comprises providing said decisions which optimize said primary objective function while concurrently satisfying said embedded constraint function" is found between page 21, line 27 and page 22, line 8.

Dependent Claim 13

All elements of this claim can be found in the Provisional Application as follows. The element of "specifying a plurality of values for a constraint factor, said constraint factor being configured to adjust an influence that said embedded constraint has on said planning model" is found between page 21 line 27 and page 22, line 8. The element of "coupling said embedded constraint function with said constraint factor" is found on page 21, equation 18.

Dependent Claim 14

The element in this dependent claim can be found between page 21, line 27 and page 22, line 8 of the Provisional Application.

Dependent Claim 15

The element in this dependent claim can be found on page 11, lines 19-24 of the Provisional Application.

Dependent Claim 16

The element in this dependent claim can be found between page 11, line 25 and page 12, line 4 of the Provisional Application.

Independent Claim 17

All elements of this claim can be found in the Provisional Application as follows. The element of "defining a primary objective function describing said primary objective, said primary objective function including said set of decision variables" is found on page 14, lines 3-9. The element of "defining a strategic objective function describing said strategic objective, said strategic objective function including a subset of said decision variables" is found on page 14, lines 16-20. The element of "generating a planning function describing said planning model, said generating operation incorporating said primary objective function and said strategic objective function within said planning function, and said planning function including a non-linear function of one of said decision variables" is found on page 16, lines 1-28. The element of "separating said planning function into independent planning functions, each of said independent planning functions depending upon different ones of said set of decision variables" is found on page 17, lines 6-12. The element of "independently optimizing each of said independent planning functions in said computer to obtain said decisions for said different ones of said set of decision variables" is found on page 17, lines 16-17. The element of "presenting an outcome of said optimizing operation at an output section of said computer, said outcome indicating said obtained decisions" is found on page 11, lines 25-31.

Dependent Claim 18

The element in this dependent claim can be found on page 10, lines 4-14of the Provisional Application.

Dependent Claim 19

All elements of this claim can be found in the Provisional Application as follows. The element of "specifying a plurality of values for a strategic factor, said strategic factor being configured to adjust an influence that said strategic objective has on said planning model" is found between page 10, line 31 and page 11, line 5. The element of "coupling said strategic objective function with said strategic factor" is found on page 11, lines 10-12. The element of "optimizing said independent planning functions for each of said values of said strategic factor" is found on page 11, lines 19-24.

Dependent Claim 20

All elements of this claim can be found in the Provisional Application as follows. The element of "defining a second strategic objective function describing a second strategic objective of said enterprise, said second strategic objective function including a second subset of said decision variables" is found on page 11, lines 12-16. The element of "incorporating said second strategic objective function within said planning function" is found on page 11, lines 12-16. The element of "providing an interaction of said primary objective function, said first strategic objective function, and said second strategic objective function" is found between page 11, line 25 and page 12, line 4.

Independent Claim 21

All elements of this claim can be found in the Provisional Application as follows. The element of "defining a primary objective function describing said primary objective, said primary objective function including said set of decision variables" is found on page 14, lines 3-9. The element of "generating a planning function describing said planning model, said planning function including said primary objective function, and said planning function depending upon said set of decision variables" is found on page 14, lines 3-9 and page 16, lines 1-28. The element of "determining a coupling between said decision variables in said primary objective function" is found on page 21, lines 4-15. The element of "introducing an embedded constraint into said primary objective function" is found on page 21, lines 18-21. The element of "separating said planning function into independent planning functions, each of said independent planning functions depending upon different ones of said set of decision variables, said

independent planning functions including said embedded constraint" is found on page 17, lines 6-12 and page 22, lines 3-13. The element of "independently optimizing each of said independent planning functions in said computing environment to obtain said decisions for said different ones of said set of decision variables, said optimizing operation optimizing said primary objective function while concurrently satisfying said embedded constraint" is found on page 22, lines 3-13. The element of "presenting at an output section of said computing environment said decisions for said different ones of said set of decision variables that optimize said each of said independent planning functions" is found on page 11, lines 25-31.

Dependent Claim 21

The element in this dependent claim can be found on page 16, lines 3-5 of the Provisional Application.

Dependent Claim 23

All elements of this claim can be found in the Provisional Application as follows. The element of "including an embedded constraint variable for said embedded constraint in said primary objective function" is found on page 21, line 20. The element of "defining a embedded constraint function to include said embedded constraint variable" is found on page 21, lines 21-24. The element of "said generating operation comprises constructing said planning function by combining said primary objective function and said embedded constraint function" is found on page 21, lines 21-24. The element of "said independently optimizing operation comprises providing said decisions which optimize said primary objective function while concurrently satisfying said embedded constraint function" is found between page 21, line 27 and page 22, line 8.

As the inventive entity of Ouimet and the present application, and U.S. Provisional Patent Application Serial No. 60/459,925 are all the same, and as all the elements contained in the claims that were rejected under Ouimet were present in the Provisional Application, Ouimet is not a valid prior art reference. Therefore, as clarified above, Applicant believes that the rejection of claims 1-23 under 35 U.S.C. §103(a) has been overcome.

Regarding the Jensen reference, Jensen discloses a method of linear decomposition in which a problem is divided into a set of subproblems. This method starts from the most detailed level (level 'i'), and then, for each subproblem 'j' on level 'i', an objective function is created (Jensen Pg. 954). This constraint function is then minimized for the optimization variables 'z_{ij}' for subproblem 'j' on level 'i' (*Id.*). Thus, each subproblem relies upon multiple optimization variables. An example of this is provided on Pg. 958 where the optimization variables 'z_{ij}' are defined in Eq (23).

This Office Action alleges that Jensen teaches separating said planning function into independent planning functions, each of said independent planning functions depending upon different ones of said set of decision variables. However, as discussed above, Jensen teaches to create subproblems that rely upon multiple optimization variables, not upon different ones of said set of decision variables.

Furthermore, Jensen does not teach independently optimizing each of said independent planning functions to obtain said decisions for said different ones of said set of decision variables. The subproblems are not optimized, rather the cumulative constraint functions that are created from the subproblems are minimized.

Therefore, even if Ouimet was to deemed prior art, which it should not, as discussed above, Jensen does not teach the remaining elements of independent claims 1, 17 and 21, and as a result, Applicant believes that the rejection of independent claims 1, 17 and 21 under 35 U.S.C. §103(a) has been overcome. Claims 2-16 depend directly or indirectly from independent claim 1, claims 18-20 depend directly or indirectly from independent claim 17, and claims 22 and 23 depend directly or indirectly from independent claim 21. Thus, Applicant believes that the rejection of claims 1-23 under 35 U.S.C. 103(a) has been overcome.

This Office Action rejects claims 11-14, 21 and 23 under 35 U.S.C. 103(a) as being unpatentable over Ouimet, and Jensen in further view of Ouimet, U.S. Patent No. 6,308,162 (hereinafter Ouimet II). As discussed above, Applicant respectfully asserts that Ouimet cannot be used as a prior reference, as all elements of claims 1-14, 21 and 23 have a basis in the

Provisional Application, the Provisional Application and Ouimet have a common inventive entity, and the Provisional Application was filed with the United States Patent and Trademark Office within one year of Ouimet's publication date.

Also, Jensen does not teach any elements taught in this application, as discussed above. Thus, Applicant believes that the rejection of independent claim 21 and dependent claims 11-14 and 23 under 35 U.S.C. §103(a) has been overcome. Furthermore, claim 22 depends from independent claim 21, and Applicant believes that the rejection of claim 22 under 35 U.S.C. §103(a) has been overcome.

Accordingly, claims 1-23 remain in the application as originally and previously submitted and are believed to be allowable.

Applicant believes that the foregoing amendments and remarks are fully responsive to the rejections and/or objections recited in the 10 June 2009 Office Action and that the present application is now in a condition for allowance. Accordingly, reconsideration of the present application is respectfully requested.

Respectfully submitted,

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